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3D Parallel Deterministic Neutron Transport with Adaptive Mesh Refinement

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AMTRAN, a 2 and 3D Sn finite element transport code will be discussed. AMTRAN runs with MPI parallelism over energy groups and spatial domains and is threaded over angles for additional parallelism in combination shared memory/distributed memory environments. It has a block adaptive mesh refinement (AMR) capability in which zoning is determined by a user specified ratio of zone width to neutron mean free path.